PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-147545

(43)Date of publication of application : 07.06.1996

(51)Int.Cl. G07F 9/02

(21)Application number : 06-311239

(22)Date of filing : 21.11.1994

(71)Applicant : SANYO ELECTRIC CO LTD

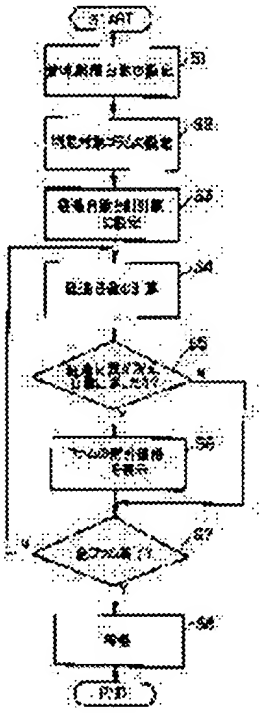
(72)Inventor : MARUYAMA TOSHITAKE

(54) AUTOMATIC VENDING MACHINE

(57)Abstract:

PURPOSE: To reduce the generation of articles whose appreciation period has expired and to promote sales during the appreciation period by changing a sales price to a prescribed price set beforehand for an article column where the articles after the lapse of prescribed days are present.

CONSTITUTION: Data on an appreciation period number-of-days are set through a remote controller first (S1). Then, data on the set number of days of the appreciation period are assigned to the respective product columns (judgement object columns) (S2). Then, the elapsed number of days from the date of storage and a discount amount are set (S3). At the time of a normal operation, the elapsed number of days from the date of the storage of the articles is calculated for the respective article columns (S4) and whether or not the elapsed number of days of the articles stored in the article column which is a calculation object reaches a prescribed number of days is discriminated (S5). In the discrimination, when the articles whose elapsed number of days reaches the prescribed number of days are stored, the discount price for the article column is calculated and the discount price is displayed at a sales price display part (S6).



LEGAL STATUS

[Date of request for examination]	03.07.2001
[Date of sending the examiner's decision of rejection]	
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]	withdrawal
[Date of final disposal for application]	29.07.2004
[Patent number]	
[Date of registration]	
[Number of appeal against examiner's decision of rejection]	
[Date of requesting appeal against examiner's decision of rejection]	
[Date of extinction of right]	

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] A pull-date setting means to set up the pull-date of the goods contained by the goods column, A distinction means to distinguish whether said goods with which a receipt day storage means to memorize the receipt day of said goods to each goods column, and the predetermined days beforehand set up from said receipt day in pull-date passed exist for every goods column, The automatic vending machine characterized by having a selling price modification means to change the selling price into the predetermined price set up beforehand about said goods column with which said goods to which said predetermined days passed by said distinction exist.
[Claim 2] A pull-date setting means to set up the pull-date of the goods contained by the goods column, A distinction means to distinguish whether said goods with which a receipt day storage means to memorize the receipt day of said goods to each goods column, and the predetermined days beforehand set up from said receipt day in pull-date passed exist for every goods column, While changing the selling price into the predetermined price set up beforehand about said goods column with which said goods to which said predetermined days passed by said distinction exist The automatic vending machine characterized by having a selling price modification means to change into the price before said modification again after sale of said goods with which said predetermined days passed is completed.
[Claim 3] A pull-date setting means to set up the pull-date of the goods contained by the goods column, A receipt condition storage means to memorize the number of receipt in receipt Japan of said goods to each goods column, and each aforementioned receipt Japan, A distinction means to distinguish the number of the goods concerned from said memorized receipt day for said every goods column in the existence list of the goods with which said pull-date passed, A discharge directions means to perform the discharge directions for making said goods discharge from said goods column, The automatic vending machine characterized by having the goods discharge means which carries out sequential discharge of the goods with which said pull-date passed based on the result of said distinction from said corresponding goods column when said discharge directions are made.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] This invention relates to amelioration of the automatic vending machine which sells the food which is applied to an automatic vending machine, especially has pull-date.
[0002]
[Description of the Prior Art] The pull-date of the goods to sell is set up conventionally and the automatic vending machine constituted so that sale of the goods distinguished and contained [whether this set-up pull-date passed and] might be stopped is known.
[0003] In such an automatic vending machine, in case goods are contained in a goods column (shelf), when pull-date passes, sale of the goods of the goods column which corresponds automatically will be stopped by setting up the pull-date of goods for every goods column. He makes the goods which went through pull-date by specifying the goods column concerned by a remote controller etc. discharge from a goods column continuously after a selling halt, and was trying to fill up new goods. the goods which went through pull-date -- not discarding -- it is desirable not to obtain but to sell goods in pull-date as much as possible.
[0004]
[Problem(s) to be Solved by the Invention] However, in the above-mentioned conventional automatic vending machine, since sale of goods was only stopped when it went through pull-date, the fault that sale could not be promoted was in pull-date.
[0005] Moreover, in the above-mentioned conventional automatic vending machine, a selling halt was only performed for every goods column, on the occasion of discharge of the goods which went through pull-date, the stopped goods column concerned needed to be specified according to the individual, goods needed to be discharged, and there was a trouble that time and effort was complicated.
[0006] Furthermore, when goods have only been filled up, without resetting pull-date, a selling halt will be performed based on the pull-date of the goods contained previously. For this reason, discharge was stopped in the phase where the first goods filled up by discharging one goods at a time and checking pull-date one by one after a selling halt were discharged, it had to be again set as the condition which can be sold and there was a trouble of taking time and effort.
[0007] The 1st purpose of this invention reduces generating of the goods which went through pull-date, and is to offer the automatic vending machine which can promote the sale in pull-date.
[0008] The 2nd purpose of this invention is to offer the automatic vending machine which can mitigate the time and effort at the time of discharging the goods which go through pull-date and cannot be sold.
[0009]
[Means for Solving the Problem] In order to solve the 1st technical problem of the above, invention according to claim 1 A pull-date setting means to set up the pull-date of the goods contained by the goods column, A distinction means to distinguish whether said goods with which a receipt day storage means to memorize the receipt day of said goods to each goods column, and the predetermined days beforehand set up from said receipt day in pull-date passed exist for every goods column, Said goods

column with which said goods to which said predetermined days passed by said distinction exist has and constitutes a selling price modification means to change the selling price into the predetermined price set up beforehand.

[0010] A pull-date setting means to set up the pull-date of the goods with which invention according to claim 2 was contained by the goods column, A distinction means to distinguish whether said goods with which a receipt day storage means to memorize the receipt day of said goods to each goods column, and the predetermined days beforehand set up from said receipt day in pull-date passed exist for every goods column, While changing the selling price into the predetermined price set up beforehand about said goods column with which said goods to which said predetermined days passed by said distinction exist After sale of said goods with which said predetermined days passed is completed, a selling price modification means to change again is had and constituted in the price before said modification.

[0011] In order to solve the 2nd technical problem of the above, invention according to claim 3 A pull-date setting means to set up the pull-date of the goods contained by the goods column, A receipt condition storage means to memorize the number of receipt in receipt Japan of said goods to each goods column, and each aforementioned receipt Japan, A distinction means to distinguish the number of the goods concerned from said memorized receipt day for said every goods column in the existence list of the goods with which said pull-date passed, A discharge directions means to perform the discharge directions for making said goods discharge from said goods column, and when said discharge directions are made, the goods discharge means which carries out sequential discharge of the goods with which said pull-date passed based on the result of said distinction from said corresponding goods column is had and constituted.

[0012]

[Function] According to invention according to claim 1, a pull-date setting means sets up the pull-date of the goods contained by the goods column. A receipt day storage means memorizes the receipt day of said goods to each goods column. A distinction means distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column, and a selling price modification means is changed into the predetermined price beforehand set up in the selling price about the goods column with which the goods to which predetermined days passed by this distinction exist. Consequently, by reducing the selling price gradually as pull-date approaches, a consumer's attractiveness to consumers can be stimulated and sales productivity can be improved.

[0013] According to invention according to claim 2, a pull-date setting means sets up the pull-date of the goods contained by the goods column. A receipt day storage means memorizes the receipt day of said goods to each goods column. A distinction means distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column. Consequently, a selling price modification means is again changed into the price before changing, after sale of the goods with which predetermined days passed is completed while it changes the selling price into the predetermined price set up beforehand about the goods column with which the goods to which predetermined days passed by distinction of a distinction means exist. Therefore, since it can usually shift to sale easily when sale of the goods with which the pull-date concerned approached is completed while being able to stimulate a consumer's attractiveness to consumers and being able to improve sales productivity by reducing the selling price gradually as pull-date approaches, sales productivity improves.

[0014] According to invention according to claim 3, a pull-date setting means sets up the pull-date of the goods contained by the goods column. A receipt condition storage means memorizes the number of receipt in receipt Japan and each receipt Japan of goods to each goods column. If the discharge directions for making goods discharge from a goods column with a discharge directions means are made in parallel to this, a distinction means will distinguish the number of the goods concerned from the memorized receipt day for said every goods column in the existence list of the goods with which pull-date passed. Consequently, a goods discharge means carries out sequential discharge of the goods with which pull-date passed based on the result of distinction from a corresponding goods column. Therefore,

only the goods which went through pull-date can be made to discharge only by directing discharge of goods with a discharge directions means at the time of a supplement of new goods.
[0015]
[Example] Next, the suitable example of this invention is explained with reference to a drawing.
(I) The external view of an automatic vending machine is shown in 1st example drawing 1 .
[0016] As shown in drawing 1 (a), when it divides roughly, an automatic vending machine 1 is equipped with a door 2 and the body 3 of an automatic vending machine which has two or more goods columns which are not illustrated, and is constituted.
[0017] The goods display 4 for exhibiting goods is formed in the transverse-plane upper part of a door 2, and in this goods display 4, while having the selling price display which is not illustrated, the price display goods selection carbon button 5 for choosing the goods which correspond for every goods column is formed.
[0018] The goods output port 6 for taking out the goods discharged from the goods column is established in the transverse-plane lower part of a door 2.
[0019] Inside the door 2, as shown in drawing 1 (b), while the display panel 7 for managing the pull-date of the contained goods is formed, the remote controller 8 for performing merchandise management, such as a setup of pull-date, a display of the sold quotient number of articles, and discharge directions of the goods which went through pull-date, is formed removable.
[0020] While equipping the interior with two or more goods columns, the goods exhaust port 12 for discharging goods is formed in the body 3 of an automatic vending machine.
[0021] Next, the outline configuration block Fig. of the control system of an automatic vending machine is shown in drawing 2 .
[0022] CPU20 by which the control system of an automatic vending machine 1 controls the automatic-vending-machine 1 whole, ROM21 which memorized beforehand the program of CPU20 of operation, the number data for every goods column which can be goods contained, RAM22 which memorizes various data temporarily, and the actual number data of goods receipt, The receipt day data corresponding to the day (receipt day) which contained goods, the selling price discount rate data (or amount data of discount) corresponding to the lapsed days from a receipt day, It has the nonvolatile RAM (NVRAM) 23 which memorizes the sales quantity data for counting the sales quantity of goods etc., the selling control section 24 which controls sale of goods and discharge, and an above-mentioned display panel 7 and an above-mentioned remote controller 8, and is constituted.
[0023] Next, actuation is explained with reference to drawing 3 .
[0024] [processing at the time of an initialization action] -- pull-date days data are first set up through a remote controller 8 (step S1). Next, the set-up pull-date days data are assigned to each goods column (column for a judgment) (step S2). Next, a setup of the lapsed days from a receipt day and the amount of discount is performed (step S3). For example, supposing pull-date is 30 days, five days before pull-date (= lapsed-days 25 days), it will set up like 75 [%] (rate 25 of discount [%]) 80 [%] (rate 20 of discount [%]), and four days before pull-date (= lapsed-days 26 days).
[0025] At the time of [processing at time of normal operation] normal operation, the lapsed days from the receipt day of goods are calculated for every goods column (step S4), and it distinguishes whether the lapsed days of the goods which have contained the goods column which is a candidate for count reached predetermined days (step S5).
[0026] In distinction of step S5, when there is that [no] to which lapsed days have reached predetermined days in the goods contained by the goods column concerned, processing is shifted to step S7. On the other hand, when the goods with which lapsed days reached predetermined days are contained in distinction of step S5, the discount price of the goods column concerned is calculated and a discount price is displayed on the selling price display which the price display goods selection carbon button 5 does not illustrate. For example, when the selling price of normal is [in the case of an above-mentioned example] 100 yen in five days before pull-date (lapsed-days 25 days), a display is performed with 80 yen (=100 yen x80[%]).
[0027] Next, CPU20 distinguishes whether processing of step S4 - step S6 was performed about the all

the commodity column (step S7), and it repeats processing of step S - step S6 until processing is performed about an all the commodity column.
[0028] In distinction of step S7, when processing is performed about an all the commodity column, it will be in a standby condition (step S8), and will shift to the usual selling condition.
[0029] A deployment of a resource can be aimed at, while according to the above example [1st] being able to become possible to promote sale by exciting a consumer's attractiveness to consumers, being able to decrease the residual quotient number of articles at the time of pull-date progress, i.e., the quotient number of articles which should be carried out disposal, and raising sales productivity, since the selling price can be reset according to the lapsed days from a receipt day (it sells at a discount price).
[0030] Although the above explanation explained the case where goods with the same pull-date were contained by the goods column of 1 When the goods with which pull-date differs in the goods column of 1 are contained While performing the processing same about goods with the same pull-date as **** and selling at a discount price, when sale of the goods concerned is completed, it is also possible to constitute so that processing corresponding to the lapsed days of the goods contained next may be performed.
[0031] That is, if it is within the period which will usually display the selling price, will usually sell with the selling price again, and will be similarly sold at a discount price if the goods contained by the degree of the goods which sold on a discount are usually within a price subscription period, it is also possible to constitute so that the discount price according to lapsed days may be displayed and it may sell at a discount price. In this case, whenever it fills up goods, it is necessary to memorize the filled-up quotient number of articles to NVRAM.
[0032] A deployment of a resource can be aimed at while it is in pull-date, it can sell on a discount when predetermined days pass, and raising sales productivity, even if it is the case where the goods with which pull-date differs in the goods column of 1 by constituting as mentioned above are contained.
(II) The 2nd example of the 2nd ******** raises the discharge effectiveness of the goods which were not able to be sold into pull-date, and the example of the automatic vending machine which can facilitate the supplement activity of goods is indicated.
[0033] Since the appearance configuration or the physical configuration of an automatic vending machine is the same as that of the 1st example, the same sign is given to a same or equivalent part, and the detailed explanation is omitted.
[0034] Hereafter, a function or actuation is explained with reference to drawing 4 and drawing 5 .
[0035] First, pull-date days data are set up through a remote controller 8 (step S11).
[0036] Next, the set-up pull-date days data are assigned to each goods column (column for a judgment) (step S12).
[0037] When it continued and the goods column was supplemented with goods, or (were goods thrown in?) it distinguishes whether it is no (step S13) and goods are not filled up, processing is shifted to step S16.
[0038] In distinction of step S13, when goods are filled up, the number of supplements (the number of injections) is memorized to NVRAM for every goods column (step S14), and injection time is further memorized to NVRAM (step S15).
[0039] And if it distinguishes whether injection actuation was completed (step S16) and injection actuation is not completed, it shifts to processing of step S13, and processing of step S13 - step S16 is repeated until injection actuation is completed.
[0040] In distinction of step S16, when injection actuation is completed, CPU distinguishes whether discharge actuation was directed by the remote controller 8 (step S17).
[0041] In distinction of step S17, if it will be in a standby condition (step S17; No) and discharge actuation is directed, performing the usual selling actuation until discharge actuation is directed (step S17; Yes), the lapsed days from the receipt day of goods will be calculated for every goods column (step S18).
[0042] In step S18, when some goods [at least] which the goods column which is a candidate for count has contained have gone through pull-date, in the number, i.e., goods column concerned, of the goods

which have gone through the pull-date concerned, the number of the goods which should be discharged is calculated (step S19), and discharge is started (step S20).
[0043] Next, if it distinguishes whether discharge was completed or not (step S21) and discharge is not completed, processing of step S18 - step S2 is repeated until it shifts to step S18 and the discharge about all goods columns completes processing.
[0044] In distinction of step S21, if discharge of the pull-date progress goods in all goods columns is completed (step S21; Yes), it shifts to the usual selling condition and will be in a standby condition (step S22).
[0045] According to the above example [2nd], since the salesman who only directs discharge about the goods which went through pull-date, can be made to discharge automatically, and supplements an automatic vending machine with goods should just fill up new goods, without being concerned with discharge actuation, a salesman's time and effort and the processing time will be simplified.
[0046]
[Effect of the Invention] According to invention according to claim 1, a distinction means It distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column. A selling price modification means Since the selling price is changed into the predetermined price set up beforehand about the goods column with which the goods to which predetermined days passed by distinction of this distinction means exist While being able to stimulate a consumer's attractiveness to consumers and being able to improve sales productivity by reducing the selling price gradually as pull-date approaches, the quotient number of articles which goes through pull-date and serves as disposal can be reduced, and a deployment of a resource can be aimed at.
[0047] According to invention according to claim 2, a distinction means It distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column. A selling price modification means While changing the selling price into the predetermined price set up beforehand about the goods column with which the goods to which predetermined days passed by distinction of a distinction means exist Since it changes into the price before changing after sale of the goods with which predetermined days passed is completed again While being able to stimulate a consumer's attractiveness to consumers and being able to improve sales productivity by reducing the selling price gradually as pull-date approaches Since it can usually shift to sale easily when sale of the goods with which the pull-date concerned approached is completed, while being able to improve sales productivity, the quotient number of articles which goes through pull-date and serves as disposal can be reduced, and a deployment of a resource can be aimed at.
[0048] Furthermore, the time and effort accompanying those setup is mitigable.
[0049] When the discharge directions for making goods discharge from a goods column are made by the discharge directions means according to invention according to claim 3, a distinction means The number of the goods concerned is distinguished from the memorized receipt day for said every goods column in the existence list of the goods with which pull-date passed. A goods discharge means Since sequential discharge of the goods with which pull-date passed based on the result of distinction is carried out from a corresponding goods column, at the time of a supplement of new goods, only by directing discharge of goods with a discharge directions means, only the goods which went through pull-date can be made to be able to discharge, and the time and effort at the time of a supplement can be mitigated.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL FIELD

[Industrial Application] This invention relates to amelioration of the automatic vending machine which sells the food which is applied to an automatic vending machine, especially has pull-date.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

PRIOR ART

[Description of the Prior Art] The pull-date of the goods to sell is set up conventionally and the automatic vending machine constituted so that sale of the goods distinguished and contained [whether this set-up pull-date passed and] might be stopped is known.
[0003] In such an automatic vending machine, in case goods are contained in a goods column (shelf), when pull-date passes, sale of the goods of the goods column which corresponds automatically will be stopped by setting up the pull-date of goods for every goods column. He makes the goods which went through pull-date by specifying the goods column concerned by a remote controller etc. discharge from a goods column continuously after a selling halt, and was trying to fill up new goods. the goods which went through pull-date -- not discarding -- it is desirable not to obtain but to sell goods in pull-date as much as possible.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] According to invention according to claim 1, a distinction means It distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column. A selling price modification means Since the selling price is changed into the predetermined price set up beforehand about the goods column with which the goods to which predetermined days passed by distinction of this distinction means exist While being able to stimulate a consumer's attractiveness to consumers and being able to improve sales productivity by reducing the selling price gradually as pull-date approaches, the quotient number of articles which goes through pull-date and serves as disposal can be reduced, and a deployment of a resource can be aimed at.
[0047] According to invention according to claim 2, a distinction means It distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column. A selling price modification means While changing the selling price into the predetermined price set up beforehand about the goods column with which the goods to which predetermined days passed by distinction of a distinction means exist Since it changes into the price before changing after sale of the goods with which predetermined days passed is completed again While being able to stimulate a consumer's attractiveness to consumers and being able to improve sales productivity by reducing the selling price gradually as pull-date approaches Since it can usually shift to sale easily when sale of the goods with which the pull-date concerned approached is completed, while being able to improve sales productivity, the quotient number of articles which goes through pull-date and serves as disposal can be reduced, and a deployment of a resource can be aimed at.
[0048] Furthermore, the time and effort accompanying those setup is mitigable.
[0049] When the discharge directions for making goods discharge from a goods column are made by the discharge directions means according to invention according to claim 3, a distinction means The number of the goods concerned is distinguished from the memorized receipt day for said every goods column in the existence list of the goods with which pull-date passed. A goods discharge means Since sequential discharge of the goods with which pull-date passed based on the result of distinction is carried out from a corresponding goods column, at the time of a supplement of new goods, only by directing discharge of goods with a discharge directions means, only the goods which went through pull-date can be made to be able to discharge, and the time and effort at the time of a supplement can be mitigated.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, in the above-mentioned conventional automatic vending machine, since sale of goods was only stopped when it went through pull-date, the fault that sale could not be promoted was in pull-date.
[0005] Moreover, in the above-mentioned conventional automatic vending machine, a selling halt was only performed for every goods column, on the occasion of discharge of the goods which went through pull-date, the stopped goods column concerned needed to be specified according to the individual, goods needed to be discharged, and there was a trouble that time and effort was complicated.
[0006] Furthermore, when goods have only been filled up, without resetting pull-date, a selling halt will be performed based on the pull-date of the goods contained previously. For this reason, discharge was stopped in the phase where the first goods filled up by discharging one goods at a time and checking pull-date one by one after a selling halt were discharged, it had to be again set as the condition which can be sold and there was a trouble of taking time and effort.
[0007] The 1st purpose of this invention reduces generating of the goods which went through pull-date, and is to offer the automatic vending machine which can promote the sale in pull-date.
[0008] The 2nd purpose of this invention is to offer the automatic vending machine which can mitigate the time and effort at the time of discharging the goods which go through pull-date and cannot be sold.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] In order to solve the 1st technical problem of the above, invention according to claim 1 A pull-date setting means to set up the pull-date of the goods contained by the goods column, A distinction means to distinguish whether said goods with which a receipt day storage means to memorize the receipt day of said goods to each goods column, and the predetermined days beforehand set up from said receipt day in pull-date passed exist for every goods column, Said goods column with which said goods to which said predetermined days passed by said distinction exist has and constitutes a selling price modification means to change the selling price into the predetermined price set up beforehand.
[0010] A pull-date setting means to set up the pull-date of the goods with which invention according to claim 2 was contained by the goods column, A distinction means to distinguish whether said goods with which a receipt day storage means to memorize the receipt day of said goods to each goods column, and the predetermined days beforehand set up from said receipt day in pull-date passed exist for every goods column, While changing the selling price into the predetermined price set up beforehand about said goods column with which said goods to which said predetermined days passed by said distinction exist After sale of said goods with which said predetermined days passed is completed, a selling price modification means to change again is had and constituted in the price before said modification.
[0011] In order to solve the 2nd technical problem of the above, invention according to claim 3 A pull-date setting means to set up the pull-date of the goods contained by the goods column, A receipt condition storage means to memorize the number of receipt in receipt Japan of said goods to each goods column, and each aforementioned receipt Japan, A distinction means to distinguish the number of the goods concerned from said memorized receipt day for said every goods column in the existence list of the goods with which said pull-date passed, A discharge directions means to perform the discharge directions for making said goods discharge from said goods column, and when said discharge directions are made, the goods discharge means which carries out sequential discharge of the goods with which said pull-date passed based on the result of said distinction from said corresponding goods column is had and constituted.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

OPERATION

[Function] According to invention according to claim 1, a pull-date setting means sets up the pull-date of the goods contained by the goods column. A receipt day storage means memorizes the receipt day of said goods to each goods column. A distinction means distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column, and a selling price modification means is changed into the predetermined price beforehand set up in the selling price about the goods column with which the goods to which predetermined days passed by this distinction exist. Consequently, by reducing the selling price gradually as pull-date approaches, a consumer's attractiveness to consumers can be stimulated and sales productivity can be improved.
[0013] According to invention according to claim 2, a pull-date setting means sets up the pull-date of the goods contained by the goods column. A receipt day storage means memorizes the receipt day of said goods to each goods column. A distinction means distinguishes whether the goods with which the predetermined days beforehand set up from the receipt day in pull-date passed exist for every goods column. Consequently, a selling price modification means is again changed into the price before changing, after sale of the goods with which predetermined days passed is completed while it changes the selling price into the predetermined price set up beforehand about the goods column with which the goods to which predetermined days passed by distinction of a distinction means exist. Therefore, since it can usually shift to sale easily when sale of the goods with which the pull-date concerned approached is completed while being able to stimulate a consumer's attractiveness to consumers and being able to improve sales productivity by reducing the selling price gradually as pull-date approaches, sales productivity improves.
[0014] According to invention according to claim 3, a pull-date setting means sets up the pull-date of the goods contained by the goods column. A receipt condition storage means memorizes the number of receipt in receipt Japan and each receipt Japan of goods to each goods column. If the discharge directions for making goods discharge from a goods column with a discharge directions means are made in parallel to this, a distinction means will distinguish the number of the goods concerned from the memorized receipt day for said every goods column in the existence list of the goods with which pull-date passed. Consequently, a goods discharge means carries out sequential discharge of the goods with which pull-date passed based on the result of distinction from a corresponding goods column. Therefore, only the goods which went through pull-date can be made to discharge only by directing discharge of goods with a discharge directions means at the time of a supplement of new goods.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

EXAMPLE

[Example] Next, the suitable example of this invention is explained with reference to a drawing.
(I) The external view of an automatic vending machine is shown in 1st example drawing 1 .
[0016] As shown in drawing 1 (a), when it divides roughly, an automatic vending machine 1 is equipped with a door 2 and the body 3 of an automatic vending machine which has two or more goods columns which are not illustrated, and is constituted.
[0017] The goods display 4 for exhibiting goods is formed in the transverse-plane upper part of a door 2, and in this goods display 4, while having the selling price display which is not illustrated, the price display goods selection carbon button 5 for choosing the goods which correspond for every goods column is formed.
[0018] The goods output port 6 for taking out the goods discharged from the goods column is established in the transverse-plane lower part of a door 2.
[0019] Inside the door 2, as shown in drawing 1 (b), while the display panel 7 for managing the pull-date of the contained goods is formed, the remote controller 8 for performing merchandise management, such as a setup of pull-date, a display of the sold quotient number of articles, and discharge directions of the goods which went through pull-date, is formed removable.
[0020] While equipping the interior with two or more goods columns, the goods exhaust port 12 for discharging goods is formed in the body 3 of an automatic vending machine.
[0021] Next, the outline configuration block Fig. of the control system of an automatic vending machine is shown in drawing 2 .
[0022] CPU20 by which the control system of an automatic vending machine 1 controls the automatic-vending-machine 1 whole, ROM21 which memorized beforehand the program of CPU20 of operation, the number data for every goods column which can be goods contained, RAM22 which memorizes various data temporarily, and the actual number data of goods receipt, The receipt day data corresponding to the day (receipt day) which contained goods, the selling price discount rate data (or amount data of discount) corresponding to the lapsed days from a receipt day, It has the nonvolatile RAM (NVRAM) 23 which memorizes the sales quantity data for counting the sales quantity of goods etc., the selling control section 24 which controls sale of goods and discharge, and an above-mentioned display panel 7 and an above-mentioned remote controller 8, and is constituted.
[0023] Next, actuation is explained with reference to drawing 3 .
[0024] [processing at the time of an initialization action] -- pull-date days data are first set up through a remote controller 8 (step S1). Next, the set-up pull-date days data are assigned to each goods column (column for a judgment) (step S2). Next, a setup of the lapsed days from a receipt day and the amount of discount is performed (step S3). For example, supposing pull-date is 30 days, five days before pull-date (= lapsed-days 25 days), it will set up like 75 [%] (rate 25 of discount [%]) 80 [%] (rate 20 of discount [%]), and four days before pull-date (= lapsed-days 26 days).
[0025] At the time of [processing at time of normal operation] normal operation, the lapsed days from the receipt day of goods are calculated for every goods column (step S4), and it distinguishes whether the lapsed days of the goods which have contained the goods column which is a candidate for count

reached predetermined days (step S5).
[0026] In distinction of step S5, when there is that [no] to which lapsed days have reached predetermined days in the goods contained by the goods column concerned, processing is shifted to step S7. On the other hand, when the goods with which lapsed days reached predetermined days are contained in distinction of step S5, the discount price of the goods column concerned is calculated and a discount price is displayed on the selling price display which the price display goods selection carbon button 5 does not illustrate. For example, when the selling price of normal is [in the case of an above-mentioned example] 100 yen in five days before pull-date (lapsed-days 25 days), a display is performed with 80 yen (=100 yen x80[%]).
[0027] Next, CPU20 distinguishes whether processing of step S4 - step S6 was performed about the all the commodity column (step S7), and it repeats processing of step S - step S6 until processing is performed about an all the commodity column.
[0028] In distinction of step S7, when processing is performed about an all the commodity column, it will be in a standby condition (step S8), and will shift to the usual selling condition.
[0029] A deployment of a resource can be aimed at, while according to the above example [1st] being able to become possible to promote sale by exciting a consumer's attractiveness to consumers, being able to decrease the residual quotient number of articles at the time of pull-date progress, i.e., the quotient number of articles which should be carried out disposal, and raising sales productivity, since the selling price can be reset according to the lapsed days from a receipt day (it sells at a discount price).
[0030] Although the above explanation explained the case where goods with the same pull-date were contained by the goods column of 1 When the goods with which pull-date differs in the goods column of 1 are contained While performing the processing same about goods with the same pull-date as **** and selling at a discount price, when sale of the goods concerned is completed, it is also possible to constitute so that processing corresponding to the lapsed days of the goods contained next may be performed.
[0031] That is, if it is within the period which will usually display the selling price, will usually sell with the selling price again, and will be similarly sold at a discount price if the goods contained by the degree of the goods which sold on a discount are usually within a price subscription period, it is also possible to constitute so that the discount price according to lapsed days may be displayed and it may sell at a discount price. In this case, whenever it fills up goods, it is necessary to memorize the filled-up quotient number of articles to NVRAM.
[0032] A deployment of a resource can be aimed at while it is in pull-date, it can sell on a discount when predetermined days pass, and raising sales productivity, even if it is the case where the goods with which pull-date differs in the goods column of 1 by constituting as mentioned above are contained.
(II) The 2nd example of the 2nd ******** raises the discharge effectiveness of the goods which were not able to be sold into pull-date, and the example of the automatic vending machine which can facilitate the supplement activity of goods is indicated.
[0033] Since the appearance configuration or the physical configuration of an automatic vending machine is the same as that of the 1st example, the same sign is given to a same or equivalent part, and the detailed explanation is omitted.
[0034] Hereafter, a function or actuation is explained with reference to drawing 4 and drawing 5 .
[0035] First, pull-date days data are set up through a remote controller 8 (step S11).
[0036] Next, the set-up pull-date days data are assigned to each goods column (column for a judgment) (step S12).
[0037] When it continued and the goods column was supplemented with goods, or (were goods thrown in?) it distinguishes whether it is no (step S13) and goods are not filled up, processing is shifted to step S16.
[0038] In distinction of step S13, when goods are filled up, the number of supplements (the number of injections) is memorized to NVRAM for every goods column (step S14), and injection time is further memorized to NVRAM (step S15).
[0039] And if it distinguishes whether injection actuation was completed (step S16) and injection

actuation is not completed, it shifts to processing of step S13, and processing of step S13 - step S16 is repeated until injection actuation is completed.
[0040] In distinction of step S16, when injection actuation is completed, CPU distinguishes whether discharge actuation was directed by the remote controller 8 (step S17).
[0041] In distinction of step S17, if it will be in a standby condition (step S17; No) and discharge actuation is directed, performing the usual selling actuation until discharge actuation is directed (step S17; Yes), the lapsed days from the receipt day of goods will be calculated for every goods column (step S18).
[0042] In step S18, when some goods [at least] which the goods column which is a candidate for count has contained have gone through pull-date, in the number, i.e., goods column concerned, of the goods which have gone through the pull-date concerned, the number of the goods which should be discharged is calculated (step S19), and discharge is started (step S20).
[0043] Next, if it distinguishes whether discharge was completed or not (step S21) and discharge is not completed, processing of step S18 - step S2 is repeated until it shifts to step S18 and the discharge about all goods columns completes processing.
[0044] In distinction of step S21, if discharge of the pull-date progress goods in all goods columns is completed (step S21; Yes), it shifts to the usual selling condition and will be in a standby condition (step S22).
[0045] According to the above example [2nd], since the salesman who only directs discharge about the goods which went through pull-date, can be made to discharge automatically, and supplements an automatic vending machine with goods should just fill up new goods, without being concerned with discharge actuation, a salesman's time and effort and the processing time will be simplified.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the outline external view of an automatic vending machine.
[Drawing 2] It is the outline configuration block Fig. of the control system of an automatic vending machine.
[Drawing 3] It is the processing flow chart of the 1st example.
[Drawing 4] It is the processing flow chart (the 1) of the 2nd example.
[Drawing 5] It is the processing flow chart (the 2) of the 2nd example.
[Description of Notations]
1 Automatic Vending Machine
2 Door
3 Body of Automatic Vending Machine
4 Goods Display
5 Price Display Goods Selection Carbon Button
6 Goods Output Port
7 Display Panel
8 Remote Controller
12 Goods Exhaust Port
20 CPU
21 ROM
22 RAM
23 NVRAM
24 Selling Control Section

[Translation done.]

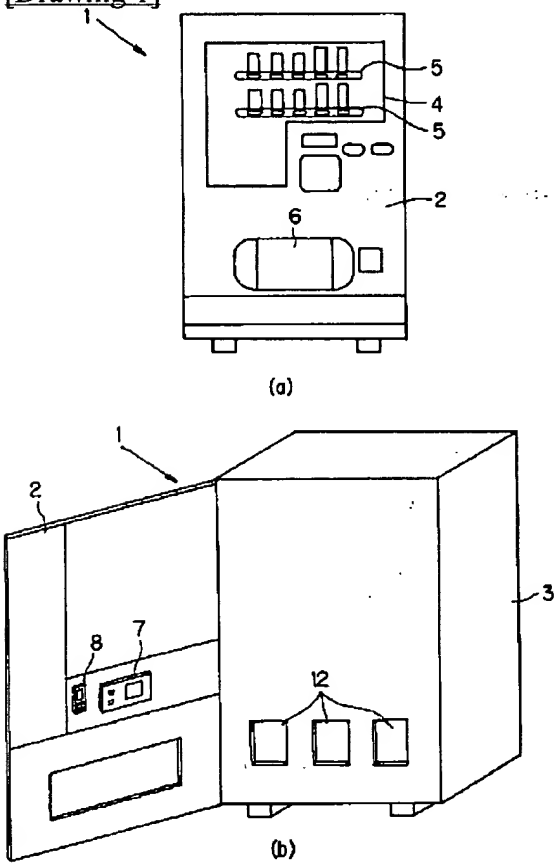
* NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

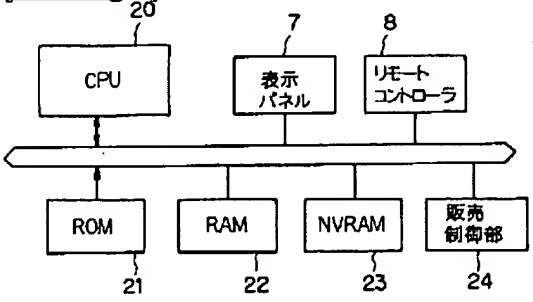
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

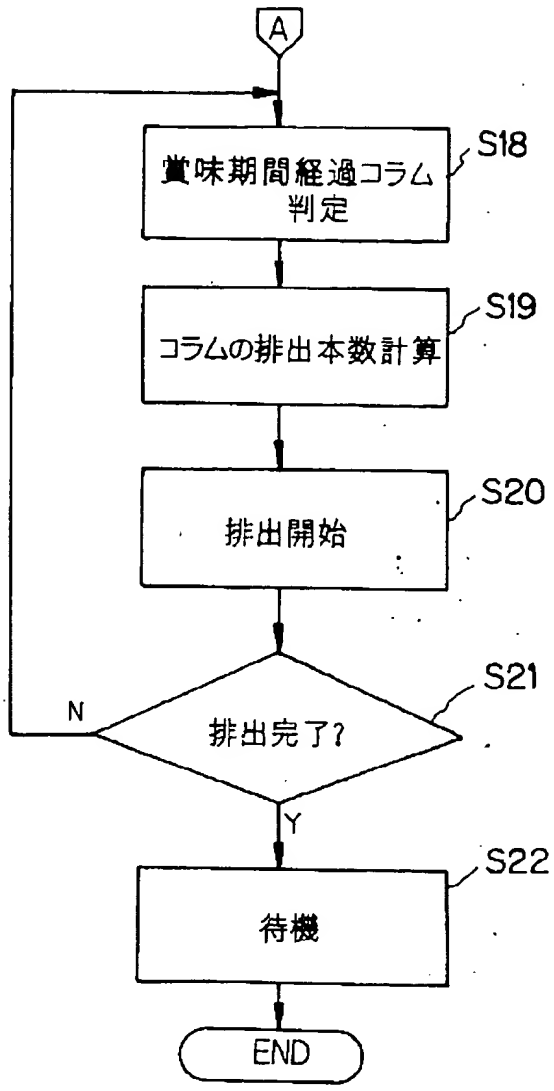
[Drawing 1]



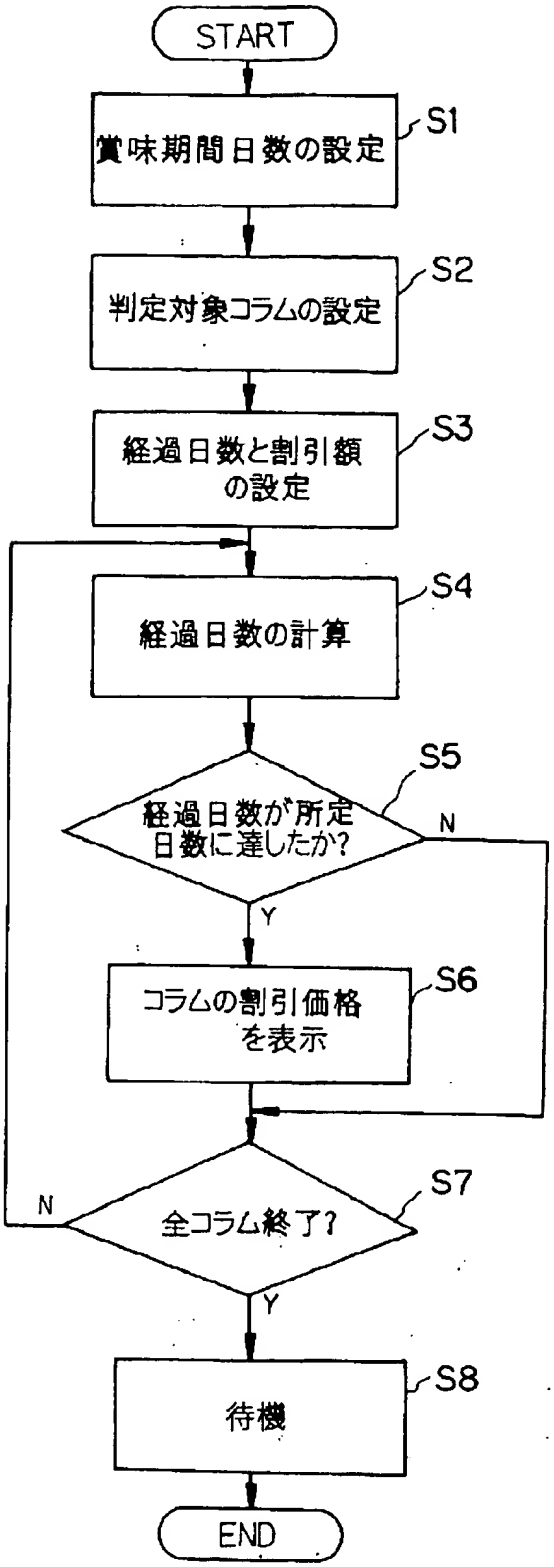
[Drawing 2]



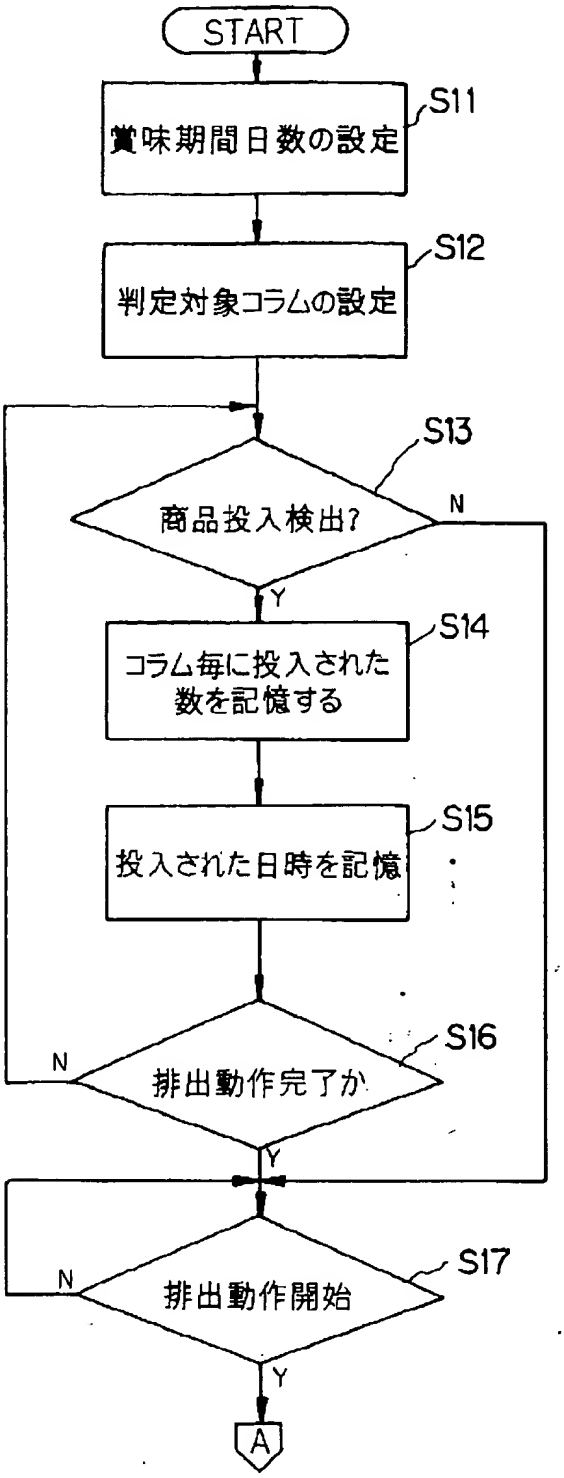
[Drawing 5]


A
賞味期間経過コラム判定
S18
コラムの排出本数計算
S19
排出開始
S20
排出完了?
S21
N
Y
待機
S22
END

[Drawing 3]


START
賞味期間日数の設定
S1
判定対象コラムの設定
S2
経過日数と割引額の設定
S3
経過日数の計算
S4
経過日数が所定日数に達したか?
S5
N
Y
コラムの割引価格を表示
S6
全コラム終了?
S7
N
Y
待機
S8
END

[Drawing 4]



[Translation done.]